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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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03/05/2007 /Pamela Gerik/
Date Pamela Gerik

APPEAL BRIEF

Sir/Madam:

Further to the Notice of Appeal filed January 4, 2007, Appellant presents this Appeal Brief. The Notice of Appeal was filed following receipt of a final Office Action mailed October 6, 2006. Appellant hereby appeals to the Board of Patent Appeals and Interferences from the rejection of pending claims 41-84 and respectfully requests that this appeal be considered by the Board.

I. REAL PARTY IN INTEREST

The subject application is owned by Schleifring und Apparatebau GmbH, having its principal place of business at Am Hardtanger 10, D-82256 Fürstenfeldbruck, Germany.

II. RELATED APPEALS AND INTERFERENCES

No appeals, interferences, or judicial proceedings are known which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 41-84 are pending and stand rejected, claims 1-40 were canceled. Claims 41-84 are being appealed.

IV. STATUS OF AMENDMENTS

No amendments to the claims were filed subsequent to their final rejection. Therefore, the Appendix hereto reflects the current state of the claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 41 describes a system for low-interference transmission of a signal, comprising (Specification -- pg. 2, lines 9-12 and 17-20; Fig. 1): a transmitter for generating an output signal to be transmitted via a transmission circuit, the signal having substantially a line spectrum (Specification -- pg. 3, lines 8-16; pg. 11, lines 7-8; Figs. 1, 5); a modulator unit associated with the transmitter for modulating the output signal to be transmitted, or a carrier signal of transmitting means in the transmitter, or the output signal at any site in the transmission circuit, independently of a modulation technique selected for the purpose of signal transmission (Specification -- pg. 5, lines 1-4; pg. 5, line 22 – pg. 7, line 16; pg. 11, lines 9-16; Fig. 1); a receiver, spatially separated from the transmitter, for receiving a modulated transmitted signal via the transmission circuit (Specification -- pg. 8, lines 5-19; pg. 11, lines 8-9; Fig. 14); and wherein the modulator unit modulates the signal so that spectral lines of the output signal are broadened to fill gaps between individual spectral lines, and a spectral power density of the output signal is reduced without a bandwidth of the output signal being substantially changed (Specification -- pg. 3, lines 12-15; pg. 4, lines 25-26; pg. 5, lines 7-21; Fig. 7-9).

Independent claim 59 describes a method for low interference transmission of a signal (Specification -- pg. 2, lines 9-12; Fig. 1), comprising the steps of: generating an output signal to be transmitted with a transmitter at a first location, the signal having substantially a line spectrum (Specification -- pg. 3, lines 8-11; pg. 11, lines 7-8; Fig. 1, 5); modulating the signal to

be transmitted, or a carrier signal of transmitting means in the transmitter, or an output signal at any site of the transmission circuit with a modulator unit, independently of a modulation technique selected for the purpose of signal transmission, to form a modulated signal (Specification -- pg. 5, lines 1-4; pg. 5, line 22 – pg. 7, line 16; pg. 11, lines 8-9); transmitting the modulated signal from the first location (Specification -- pg. 11, lines 9-16; Fig. 1); receiving the modulated transmitted signal via a transmission circuit at a second location spatially separated from the first location (Specification -- pg. 8, lines 8-19; pg. 11, lines 8-9; Fig. 14); and wherein the signal is modulated so that spectral lines of the output signal are broadened to fill gaps between individual spectral lines, and a spectral power density of the generated signal is reduced, without a bandwidth of the generated signal being substantially changed (Specification -- pg. 3, lines 12-15; pg. 4, lines 25-26; pg. 5, lines 7-21; Figs. 7-9).

Independent claim 79 describes a system for transmitting a digital data signal, comprising (Specification -- pg. 2, lines 16-19; pg. 3, lines 8-11; Fig. 1): a first stationary part (Specification -- pg. 2, lines 18-20); a second movable part (Specification -- pg. 2, lines 4-7; pg. 3, lines 8-9); a transmitter for generating a transmitter output signal that includes a carrier signal and the data signal (Specification -- pg. 3, lines 8-11; Fig. 1); a receiver for receiving the transmitter output signal (Specification -- pg. 8, lines 8-19; Fig. 14); a transmission circuit coupling said transmitter to said receiver and for transmitting the transmitter output signal between said first stationary part and said second movable part (Specification -- pg. 11, lines 9-16; Fig. 1); a modulator coupled to said transmission circuit for generating a modulation signal (Specification -- pg. 5, line 22 – pg. 7, line 16; pg. 11, lines 9-16; Fig. 1); a controller coupled to and controlling said modulator to generate the modulation signal and to apply the modulation signal at substantially any site in and along the transmission circuit to modulate the transmitter output signal so that a signal spectrum of the transmitter output signal is substantially distributed and a mean spectral power density of the transmitter output signal is reduced (Specification -- pg. 5, lines 1-4; pg. 11, lines 9-16; Fig. 1); and wherein the modulator modulates the transmitter output signal so that spectral lines of the transmitter output signal are broadened to fill gaps between individual spectral lines of the transmitter output signal, and a spectral power density of the transmitter output signal is reduced without a bandwidth of the transmitter output signal being substantially changed (Specification -- pg. 3, lines 12-15; pg. 4, lines 25-26; pg. 5, lines 7-21; Figs. 7-9).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 41-84 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,995,534 to Fullerton et al. (hereinafter "Fullterton") in view of U.S. Patent No. 4,831,463 to Faroudja (hereinafter "Faroudja").

VII. ARGUMENT

The contentions of the Appellant with respect to the ground of rejection presented for review, and the basis thereof, with citations of the statutes, regulations, authorities, and parts of the record relied upon are presented herein for consideration by the Board. Details as to why the rejections cannot be sustained are set forth below.

Rejection of Claims 41-84

Claims 41-84 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fullerton in view of Faroudja. To establish a case of *prima facie* obviousness of a claimed invention, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there must be a reasonable expectation of success. As stated in MPEP 2143.01, the fact that references can be hypothetically combined or modified is not sufficient to establish a *prima facie* case of obviousness. *See In re Mills*, 916 F.2d. 680 (Fed. Cir. 1990). Finally, the prior art references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d. 981 (CCPA 1974); MPEP 2143.03. Specifically, "all words in a claim must be considered when judging the patentability of that claim against the prior art." *In re Wilson* 424 F.2d., 1382 (CCPA 1970). Using these standards, Applicants contend that the cited art fails to teach or suggest all features of the currently pending claims, some distinctive features of which are set forth in more detail below.

Appellant's invention relates to the transmission of a signal and, more specifically, a transmitter and a receiver separated from each other by a transmission path. To achieve low-interference transmission of a signal from the transmitter to the receiver, a modulator is associated with the transmitter. The modulator of the transmitter modulates the signal output from the transmitter, or at almost any site along the transmission system. Therefore, the receiver receives the modulated transmitted signal sent across the transmission path.

One way in which to minimize interference when transmitting the signal from the transmitter to the receiver is to fill gaps between individual spectral lines. For example, before modulation, the signal can be represented in the frequency domain as a line spectrum. When the gaps between the individual spectral lines are filled, the mean spectral power density across the bandwidth of the transmitted signal is correspondingly reduced.

Filling the gaps between spectral lines results from modulating the clock generator within the transmitter to impart a small jitter on that transmitted signal (Specification -- pg. 3, lines 12-23). This modulating technique is the first modulating technique of two modulations upon the transmitted signal. The second modulation can be any form of modulation used to convey the transmitted signal to a receiver. For example, the second modulation might be an amplitude modulation, frequency modulation, or any other modulation technique (Specification -- pg. 3, lines 20-23).

Filling the gaps between spectral lines causes the transmission signal output from the transmitter's modulator to undergo a "significant spreading" between spectral lines (Specification -- pg. 4, lines 17-27; pg. 5, lines 6-19). One way in which to apply jitter to the clock of the transmitter and thereby spread or fill gaps between spectral lines is to modulate the voltage-controlled oscillator (VCO) of the transmitter (Specification -- pg. 5, lines 12-22).

Details of the transmission system, including the transmitter, its associated modulator, and a receiver for receiving the modulated signal across the transmission path are described in the present specification and illustrated in Fig. 1. There are numerous ways in which to spread the spectrum. One illustrative example is to apply pseudo-noise data coding to modulate the

clocking signal applied to the transmitted carrier (Specification -- pg. 17, lines 1-10). A comparison of present Figs. 5 and 7 indicates pseudo-random coding applied to the spectral lines of Fig. 5 to spread or fill gaps between spectral lines. Present Fig. 9 further illustrates another modulation technique of frequency-modulating the bit clock signal to impart jitter on the edges of the clock, which is then applied to form the transmission carrier. Present Fig. 20 also illustrates frequency modulation of a PCM signal to spread the spectrum of the original spectral line shown in Fig. 19. Of importance is that regardless of the type of modulation applied, there is “only a minor effect on the width of the spectrum” (Specification -- pg. 7, lines 25-26).

As shown throughout the present drawings and, specifically, Fig. 7, 8, and 16, while gaps between the spectral lines are filled and power density reduced, the overall width of the frequency spectrum does not significantly change. In fact, bandwidth of the modulated signal at the transmitter after modulation does not substantially increase or decrease (i.e., does not substantially change). The only change is that the gaps between spectral lines are filled and the power density is decreased.

Contrary to the present claims, the cited references that describe a transmitter (and a modulation within the transmitter) specifically require that the bandwidth be folded. In other words, the cited references teach to those skilled in the art that, “prior to passage through a bandwidth or resolution degraded medium” such as a transmission path, the signal is modulated by “folding high frequency luminance spectral components of video information into lower-band and mid-band luminance spectral gaps . . .” (Faroudja -- col. 1, lines 11-13; col. 4, lines 41-46). Folding the high frequency spectral components into the low frequency spectral components not only compresses the spectrum video, but the cited references depend on this compression in order to overcome degradation caused by the storage or transmission medium (Faroudja -- Abstract). Thus, when transmitted, a modulator of the transmitter in Faroudja must fold the bandwidth into half its original bandwidth, and it is not until the signal is received on the receiver that the bandwidth is unfolded (Faroudja -- col. 5, lines 3-13; col. 6, lines 4-37).

Fullerton, while disclosing a transmitter and a receiver separated by a transmission path, makes no mention whatsoever of what happens to the bandwidth when modulated by a transmitter. However, a skilled artisan would recognize the teachings of Faroudja and deduce that the combination of Farouda and Fullerton would suggest that the bandwidth of the signal output from the transmitter's modulator is reduced by half, and it is not until the signal arrives at the receiver that the bandwidth be doubled. Moreover, when reading Faroudja and Fullerton, a skilled artisan would further deduce that since neither reference makes any mention of a change in spectral power density as a result of the transmitter modulator, the spectral power density would conventionally not change, nor would there be any motivation for the spectral power density to change given the teachings of the prior art.

The cited art, when describing a transmission system, does not teach or suggest a modulator unit associated with a transmitter that modulates an output signal transmitted from the transmitter so that the spectral power density of the output signal is reduced. Present independent claims 41, 59, and 79 each describe a modulator unit within or corresponding to a transmitter. Specifically, the spectral power density produced from the transmitter is reduced by comparing present Figs. 5 and 7, the spectral lines of Fig. 5 are modulated so that the gaps between the spectral lines are filled (Fig. 7). Moreover, the power density of each spectral line is reduced. The overall bandwidth beginning at 9 Hz and extending upwards to 1 GHz does not change. Thus, the overall bandwidth remains unaffected, even though the spectral lines within the bandwidth are filled and power density is reduced. The various spectral lines shown in each of these figures are modulated so that the gaps between the spectral lines (or around a spectral line) are filled in with the modulated signal. However, the overall spacing between the spectral lines commensurate with the bandwidth from one spectral line to the next does not substantially change when the gaps between the spectral lines are filled.

Contrary to present independent claims 41, 59, and 79, Faroudja specifically requires that, when modulating a transmitted signal, the higher frequency spectral components are folded into the lower-band and mid-band spectral gaps (Faroudja -- col. 4, lines 39-44). The Examiner appears to take the position that, although the transmitter (specifically the modulator within the transmitter) of Faroudja folds the bandwidth to approximately one-half the original bandwidth,

the receiver nonetheless unfolds the bandwidth so that the output from the receiver produces a signal having the original bandwidth. While this is correct as to Faroudja, Appellant wishes to point out that the Examiner's position is irrelevant as to the present claims. Each of the present independent claims recite a transmitter and, more specifically, a modulator of a transmitter that performs a specific function. The receiver may or may not have a modulator, and may or may not do anything whatsoever to the signal being received. The present claims, however, focus on the modulation within the transmitter. Thus, while Faroudja discloses folding within a transmitter or recording device and unfolding within a receiver of playback device, it nonetheless does specifically teach and require folding within the transmitter's modulator. The present claims, however, specifically teach away from any type of folding within the transmitter's modulator and, in fact, specifically state that the transmitter's modulator signal bandwidth remains substantially the same as the signal which enters the transmitter's modulator.

Appellant's respectfully request that the Board take official notice to that which is claimed and, specifically, the present independent claims describing what is occurring in the transmitter's modulator. What happens after transmission modulation and receiving modulation as the sum outcome is irrelevant. What is relevant is that Faroudja teaches what happens in the transmitter's modulator as a folding operation -- the antithesis of the present claims which explicitly state the bandwidth is unchanged at the transmitter. When reading Faroudja, a skilled artisan when attempting to combine Faroudja with Fullerton, would mandate that the cited references require a transmitter's modulator to reduce the bandwidth before entering a degrading medium, such as a transmission path (Faroudja -- col. 1, lines 11-13; col. 3, lines 3-5 and 40-42; col. 4, lines 39-41 and 45-47). A skilled artisan would also quickly realize that since neither Fullerton nor Faroudja make any mention of a reduction in spectral power density, that there would be no motivation or incentive to reduce spectral power density, especially since Faroudja describes an opposite motivation of possibly increasing spectral power density at the output of the transmitter since the signal is about to enter a "degrading medium" (Faroudja -- col. 1, lines 12-13). Thus, to reduce the spectral power density before placing the transmitted signal into the transmission path would seem to destroy the intent of Faroudja which is to compress the signal to offset medium degradation.

The cited art, when describing a transmission system, teaches away from a modulator unit associated with a transmitter that modulates an output signal without substantially changing a bandwidth of that output signal. Again, each of the independent claims 41, 59, and 79 explicitly require that the output signal from the transmitter's modulator have a bandwidth that does not change relative to the signal placed into the transmitter's modulator. Thus, the signal output from the transmitter is unfolded. Contrary to the present claims, Faroudja requires that the output signal from the transmitter before entering the degrading medium be folded. Requiring that Faroudja no longer fold the transmitter output would render Faroudja unsatisfactory for its intended purpose. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Any proposed modification of no longer folding the transmitter's output in Faroudja would change the entire principle of its operation. *In re Ratti*, 270 F.2d 810 (CCPA 1959).

Faroudja and Fullerton do not teach or suggest a first stationary part and a second movable part, with a transmission circuit coupled to transmit an output signal between the first stationary part and the second movable part. Present independent claim 79 recites a transmission circuit coupled to transmit an output signal between a first stationary part and a second movable part. Contrary to claim 79, neither Faroudja nor Fullerton make any mention of a stationary part and a movable part, much less a transmission circuit which transmits a signal between the first stationary part and the second movable part. The Office Action asserts that the first stationary part and the second movable part are set forth in Faroudja (Office Action -- page 7). However, upon a closer reading of Faroudja, nowhere in the sections cited by the Examiner is there any mention that a portable camera and a recorder, such as a video cassette recorder, constitute both a stationary part and a movable part. Moreover, there is no reference made in Faroudja that a "consumer quality video cassette recorder" is stationary.

Faroudja and Fullerton do not teach or suggest a modulator unit that controls a clock generator for broadening of spectral lines. Present dependent claims 45-48 and 63-66 make clear that the particular modulation technique involves a modulator unit that controls a clock generator. The clock generator thereby produces frequency modulation to the clock cycle. This can be achieved by use of a VCO as a frequency-determining element, and the frequency modulation is applied to the VCO. Nowhere is there any mention in either Faroudja or Fullerton

of modulating a clock cycle using frequency modulation or any other technique via a VCO as set forth in present claims 45-48 and 63-66.

For the foregoing reasons, Appellant asserts that independent claims 41, 59, and 79 are patentably distinct over the cited references. In addition, Appellant asserts that dependent claims 42-58, 60-78, and 80-84 are also patentably distinct over the cited references for at least the same reasons as their respective base claim.

* * *

For the foregoing reasons, it is submitted that the Examiner's rejection of and objection to pending claims 41-84 was erroneous, and reversal of the Examiner's decision is respectfully requested.

In accordance with MPEP 1204.01, Appellant requests that the appeal brief fee previously paid on or about February 1, 2006 be applied hereto. However, if additional fees are required, the Commissioner is hereby authorized to charge the required fee(s) or credit any overpayment to Daffer McDaniel, LLP deposit account number 50-3268.

Respectfully submitted,
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Kevin L. Daffer
Reg. No. 34,146
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KLD

VIII. APPENDIX

The present claims on appeal are as follows.

41. System for low-interference transmission of a signal, comprising:

a transmitter for generating an output signal to be transmitted via a transmission circuit, the signal having substantially a line spectrum;

a modulator unit associated with the transmitter for modulating the output signal to be transmitted, or a carrier signal of transmitting means in the transmitter, or the output signal at any site in the transmission circuit, independently of a modulation technique selected for the purpose of signal transmission;

a receiver, spatially separated from the transmitter, for receiving a modulated transmitted signal via the transmission circuit; and

wherein the modulator unit modulates the signal so that spectral lines of the output signal are broadened to fill gaps between individual spectral lines, and a spectral power density of the output signal is reduced without a bandwidth of the output signal being substantially changed.

42. System according to Claim 41, wherein the modulator unit modulates the output signal to be transmitted, or a carrier signal of transmitting means in the transmitter, or the output signal at any site along the transmission circuit, independently of a transmission cycle.

43. System according to Claim 41, wherein a controller serves to control the modulator unit.

44. System according to Claim 41, wherein the transmitter comprises a clock generator.

45. System according to Claim 44, wherein the modulator unit controls the clock generator appropriately for broadening the spectral lines.

46. System according to Claim 45, wherein the modulator unit subjects a cycle frequency of the clock generator to frequency modulation.

47. System according to Claim 46, wherein the clock generator comprises a VCO as a frequency-determining element.

48. System according to Claim 47, wherein the control unit adjusts the VCO.

49. System according to Claim 41, wherein the modulator unit subjects the signal to be transmitted to frequency, phase or amplitude modulation.

50. System according to Claim 41, wherein the modulator unit subjects the carrier signal of the transmitting means in the transmitter or the transmitter output signal at substantially any site along the transmission circuit to frequency or phase modulation, independently of a modulation technique selected for the purpose of signal transmission.

51 System according to Claim 41, wherein the carrier signal or the transmitter output signal is pulsed, and the modulator unit shifts or delays individual signal edges towards earlier or later points of time in proportion to a signal defined by an additionally provided modulation signal generator.

52. System according to Claim 51, wherein the modulator unit comprises a delay control means for analyzing the transmitter output signal and for controlling a delay circuit which causes a shift or delay.

53. System according to Claim 52, wherein the delay control means comprises a PLL means, and the delay circuit comprises a flip-flop circuit.

54. System according to Claim 41, wherein the transmitter comprises a PLL means.

55. System according to Claim 54, wherein a variation of modulation by the modulator unit is covered by a control range of the PLL means of the transmitter.

56. System according to Claim 41, wherein data coding by means of pseudo random noise is performed in addition to a modulation by the modulator unit.

57. System according to Claim 41, wherein a second controller unit is provided in the receiver for controlling the receiver synchronously with the modulation performed by the modulator unit in the transmitter or at substantially any site along transmission circuit, so that the signal received in the receiver is processed as an unmodulated signal, a synchronization between the transmitter, or the transmission circuit, and the receiver being achieved by means of the modulation signal or even another signal jointly available to the transmitter, or the transmission circuit, and the receiver.

58. System according to Claim 41, wherein an additional transmission circuit is provided between the transmitter, or the transmission circuit, and the receiver for a transmission of a synchronization signal for controlling a modulation of the transmitter, or the transmission circuit, and the receiver.

59. Method for low interference transmission of a signal, comprising the steps of:

generating an output signal to be transmitted with a transmitter at a first location, the signal having substantially a line spectrum;

modulating the signal to be transmitted, or a carrier signal of transmitting means in the transmitter, or an output signal at any site of the transmission circuit with a modulator unit, independently of a modulation technique selected for the purpose of signal transmission, to form a modulated signal;

transmitting the modulated signal from the first location;

receiving the modulated transmitted signal via a transmission circuit at a second location spatially separated from the first location; and

wherein the signal is modulated so that spectral lines of the output signal are broadened to fill gaps between individual spectral lines, and a spectral power density of the generated signal is reduced, without a bandwidth of the generated signal being substantially changed.

60. Method according to Claim 59, wherein the spectral power density is reduced by filling gaps between individual spectral lines.

61. Method according to Claim 59, wherein the modulator unit is controlled by means of a controller.

62. Method according to Claim 59, wherein the transmitter comprises a clock generator.

63. Method according to Claim 62, wherein the clock generator is appropriately controlled by means of the modulator unit for broadening the spectral lines.

64. Method according to Claim 63, wherein the cycle frequency of the clock generator is frequency modulated by means of the modulator unit.

65. Method according to Claim 64, wherein the clock generator comprises a VCO as frequency-determining element.

66. Method according to Claim 65, wherein the VCO is adjusted by means of the controller.

67. Method according to Claim 59, wherein the modulator unit subjects the signal to be transmitted to frequency, phase or amplitude modulation.

68. Method according to Claim 59, wherein the modulator unit subjects the carrier signal of the transmitting means of the transmitter, or the transmitter output signal, at substantially any site along the transmission circuit to frequency or phase modulation, independent of the modulation technique selected for the purpose of signal transmission.

69. Method according to Claim 59, wherein the carrier signal or the transmitter output signal is pulsed, and the modulator unit shifts or delays individual signal edges towards earlier or later points of time in proportion to a signal defined by an additionally provided modulation signal generator.

70. Method according to Claim 69, wherein the modulator unit comprises a delay control means for analyzing the transmitter output signal and for controlling a delay circuit which causes a shift or delay.

71. Method according to Claim 70, wherein the delay control means comprises a PLL means and the delay circuit comprises a flip-flop circuit.

72. Method according to Claim 59, wherein the transmitter comprises a PLL means.

73. Method according to Claim 72, wherein a variation of modulation by the modulator unit is covered by a control range of the PLL means of the transmitter.

74. Method according to Claim 59, wherein data coding is performed by means of pseudo random noise in addition to a modulation by the modulator unit.

75. Method according to Claim 59, wherein a second controller unit is provided in the receiver for controlling the receiver synchronously with the modulation performed by the modulator unit in the transmitter or at substantially any site along transmission circuit, so that the signal received in the receiver is processed as an unmodulated signal, a synchronization between the transmitter, or the transmission circuit, and the receiver being achieved by means of the modulation signal or even another signal jointly available to the transmitter, or the transmission circuit, and the receiver.

76. Method according to Claim 59, wherein an additional transmission circuit is provided between the transmitter, or the transmission circuit, and the receiver for a transmission of a synchronization signal for controlling a modulation of the transmitter, or the transmission circuit, and the receiver.

77. System according to Claim 41, wherein the transmission circuit is selected from the group consisting of a line-bound transmission circuit, a contacting transmission circuit, a contact-free transmission circuit, or combinations thereof.

78. System according to Claim 41, wherein the signal comprises a digital signal.

79. System for transmitting a digital data signal, comprising:

a first stationary part;

a second movable part;

a transmitter for generating a transmitter output signal that includes a carrier signal and the data signal;

a receiver for receiving the transmitter output signal;

a transmission circuit coupling said transmitter to said receiver and for transmitting the transmitter output signal between said first stationary part and said second movable part;

a modulator coupled to said transmission circuit for generating a modulation signal;

a controller coupled to and controlling said modulator to generate the modulation signal and to apply the modulation signal at substantially any site in and along the transmission circuit to modulate the transmitter output signal so that a signal spectrum of the transmitter output signal is substantially distributed and a mean spectral power density of the transmitter output signal is reduced; and

wherein the modulator modulates the transmitter output signal so that spectral lines of the transmitter output signal are broadened to fill gaps between individual spectral lines of the transmitter output signal, and a spectral power density of the transmitter output signal is reduced without a bandwidth of the transmitter output signal being substantially changed.

80. System according to Claim 79, wherein the transmission circuit is selected from the group consisting of a line-bound transmission circuit, a contacting transmission circuit, a contact-free transmission circuit, or combinations thereof.

81. System according to Claim 41, wherein the transmitter and the receiver are mobile relative to each other.

82. System according to claim 41, wherein the transmitter is a rotating data transmission device.

83. Method according to Claim 59, wherein the transmitter and the receiver are mobile relative to each other.

84. Method according to claim 83, wherein the transmitter is a rotating data transmission device.

IX. EVIDENCE APPENDIX

No evidence has been entered during the prosecution of the captioned case.

X. <u>RELATED PROCEEDINGS APPENDIX</u>

No prior or pending appeals, interferences, or judicial proceedings are known to Appellant or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.